

*A Report of the Practice of Midwifery, at the Westminster General Dispensary, during 1818; including new Classifications of Labours, Abortions, Female Complaints, and the Diseases of Children: with Computations on the Mortality among Lying-in Women and Children, and the probability of Abortion taking place at different Periods of Pregnancy, &c.* By A. B. GRANVILLE, M.D. F.R.S. F.L.S. M.R.I. Physician-in-Ordinary to his Royal Highness the Duke of Clarence, Licentiate of the Royal College of Physicians, Physician-Accoucheur to the Westminster General Dispensary, &c. 8vo. pp. 220. 1819.

THERE is hardly any subject, however dull and barren to the generality of persons, that may not become the source of interesting speculations and various useful inferences to a man of genius. Circumstances apparently the most trivial have given birth to some of the grandest views in science, as well as to many of the finest productions in the *belles-lettres*. It should not, therefore, excite surprise, that the practice in the midwifery department of a Public Dispensary for one year, has here been made the basis of a work, which comprises numerous original statements of remarkable interest to the politician, as well as to the practitioner of medicine. Several good reports of a similar kind had certainly been already produced, but they left much to be regarded by more comprehensive views of the subject in itself, as well as of its relations to others of more or less importance to our social interests. Some of the statistical accounts here adduced by Dr. Granville present the principles of a series of information of considerable value to those who study the regulations of societies for granting annuities on the lives of individuals, or on the probability of that of their existing or expected progeny, of which we shall give a concise statement, at the same time that we point out what is more expressly interesting to the medical practitioner.

An *Introduction* comprises some very pertinent and good remarks on the utility of public dispensaries, and on the relative value of those establishments to hospitals in which sick persons are admitted as residents; a chronological list of the several dispensaries established in the metropolis, with a particular account of the *Westminster General* institution of this kind; and a view of the series of matters treated of in the body of the work.

The first section commences with some considerations on *Parturition*, which furnish the author with an opportunity for

proving the great importance and peculiar value of those institutions which afford aid to pregnant women at their own homes in the time of their puerperal confinement. He then adduces some interesting statistical calculations respecting the results of pregnancy, the nature of labours, and the artificial aid required, the mortality, age of the patients, and proportion of children preserved alive at a certain period. Of 640 cases of pregnancy occurring in one year, 627 went the full time: the proportion of boys to girls was as 3 to  $2\frac{7}{8}$ ; the general proportion of still-born children 1 in  $31\frac{1}{2}$ ; but that of boys was 1 in 27, whilst that of girls was only 1 in  $37\frac{1}{2}$ , a diversity which nearly accords with the calculations of other authors, and is explicable by the greater size of male than female children at the time of birth. Nine women out of the 640 had twins, and produced 14 children alive and at the full time, and four still-born, or before the nine months. The proportion of twin cases was 1 in 71: the children were both males in two cases, both females in four cases, and male and female in three cases.

The labours are divided by the author into *active* and *passive*: by the former term he designates labours "terminated without the slightest interference by nature alone;" by the latter, those in which "nature becomes *passive*, or insufficient, and the assistance either of the *hand* or instruments is absolutely necessary to terminate the labour. This classification of labours is proposed in place of the complicated arrangement of all the existing methods, and is, the author thinks, calculated to answer every useful purpose to the practitioner.

Of the 640 cases already noticed, 619 were active, 515 of which terminated within the first twelve hours. Of the twenty-one passive cases, thirteen received *manual* aid, and eight *instrumental*. The author states that he has found, in general, that when a labour which has begun under the most favourable circumstances is suffered to linger beyond fifty hours from the first *real* pain, it becomes a passive one, and is reduced either to a manual or instrumental labour. He includes those in which artificial aid in the extraction of the placenta was required, in the foregoing number of passive labours. In the eight instrumental labours, the forceps were employed in five instances; in one of these there were convulsions, and in two the head was firmly impacted in the pelvis, with the face to the pubis; in the other two the vertex presented.

The proportion of cases in which instruments were employed was one in eighty. This is a high proportion in comparison with the occurrences of private practice, or even the practice of lying-in hospitals; but the author explains it, by stating that there exists, particularly in the lower classes, a decided aversion amongst lying-in women against the interference of the ac-

concheur, which induces them to trust too much to time and nature, and to rely on them until nature becomes exhausted. Several cases, therefore, which, by more timely interference, would only have required manual assistance, now demanded instrumental. The more immediate superintendence of accoucheurs over the midwives in lying-in hospitals, enables them to restrain or prevent these occurrences, which cannot be easily effected where women are attended by midwives at their own homes. The same circumstances, only more widely extended, influence the whole of the puerperal state, and render the ratio of mortality much greater than that in private practice. Yet it is remarkable, that only four of the 640 are stated to have died after labour, and the whole of these after passive labour; which makes the proportion of deaths only 1 in 160, whilst the bills of mortality for London make it amount to 1 in about 109, as an average for the last few years. Of those four deaths, one happened in the woman attacked with convulsions; in another, the patient had been suffering from phthisis pulmonalis; the third, "the only patient (says the author) whom I have lost from peritonitis in the course of the twelve months, was that of a woman who had been delivered in the Brownlow-street Hospital, and occurred a few days after her confinement."

Some very curious and interesting statistical accounts of the ages of the patients then follow.

Of 623 pregnant women, whose ages could be ascertained, there were—

Age.	Number.	Proportion.
From 16 to 20 ..	7	1 in 89
— 20 to 30 ..	325	1 in $1\frac{9}{10}$
— 30 to 40 ..	244	1 in $2\frac{1}{4}$
— 40 to 50 ..	46	1 in $13\frac{1}{2}$
At 52.....	1	1 in 623
Average age, 30	Tot. 623	—

The collective age of these 623 women being 18,698 years.

\* During the year 1816, some women were admitted into the *Maternité* as young as thirteen years of age, but none had applied who were older than forty. During the Revolution, one or two instances occurred of girls at eleven, and below that age, being received in a pregnant state into that Hospital. The number in 1816 stands thus :

Age.	Number.	Proportion.
From 13 to 18 ..	75	1 in $35\frac{1}{5}$
— 18 to 30 ..	1905	1 in $1\frac{2}{5}$
— 30 to 40 ..	653	1 in $4\frac{2}{3}$
Average age, 25	Tot. 2633	



“From this comparative statement, in the drawing-up of which I have employed the usual formulæ of arithmetical progression, it will be seen, 1st. That the age at which French women bear most children is between twenty-five and twenty-six; whereas, thirty appears to be the age in England; and 2dly. That English women are susceptible of bearing children to a much greater age than the French. In comparing, also, the number of women who became pregnant at an equal time of life in both countries, it is curious to observe, that the period between twenty and thirty years of age with us, and that of between eighteen and thirty in France, gives, very nearly indeed, the same proportion, namely, 1 in  $1\frac{2}{10}$ .”

The report of one year is, the author remarks, too confined to admit of precise general inferences respecting these circumstances, so especially interesting to politicians and life-annuity societies; but a succession of these records, for several years, will furnish a good foundation for them.

The second section treats of *Abortion*. Here the author completely refutes the assertion of those who have stated that abortions but rarely happen amongst women of the lower ranks of life, except from accidental and external violence, at least as far as the women of this class in the metropolis are concerned. He has taken much pains in investigating the number of miscarriages which 400 married women had suffered within the last ten years, without including any circumstances relative to the pregnancy under which they applied to him at the Dispensary. Of those 400, 128 had miscarried at some period or other of their marriage, within the ten years, which makes a proportion of 1 in  $3\frac{3}{5}$ ; the whole number of abortions, however, amounted to 305, giving a proportion of  $2\frac{3}{10}$  for each woman. The same women produced, during the same term of years, 556 living children, at or near the full time; therefore the number of abortions was to that of children born at their full time as 18 to 32.

Some highly interesting observations follow on the probable causes of the abortions. This term the author thinks should be applied to birth at any period before the ninth month, not confined to any arbitrary time. He shows the impropriety of the division into *miscarriages*, and *premature labours or births*, according as the abortion takes place before or after the seventh month, by the fact that children have lived when produced before this period.

Dr. Granville refers the cases of abortion to two distinct classes: 1. Constitutional; 2d. Accidental. The constitutional are divided into (a) active, from local or general fulness, excessive irritability of the womb, increased local action; (b) passive, from local or general debility, certain morbid states of the body, defective organization, peculiarities of the ovum, and its

situation in the womb, habit, and sympathy. The accidental are referred to fright, falls, violent exercise, violent passions, blows, incautions use of medicines, improper physical and moral treatment. Of the 305 cases noted in the Dispensary register, 156 appear to have been referable to the first, and 149 to the second class; and, from the care with which women generally retain in their memory all the circumstances relating to these accidents, it is probable that the specification is tolerably accurate.

A subdivision of this section treats of *the relative periods of pregnancy at which abortion takes place, and calculation of the probabilities of a woman miscarrying*, on the evidence presented in the cases already noticed. Of these, 185 occurred within the first three months of pregnancy, sixty-five from three to six months, and fifty-five from six to eight months. From which it appears, that, if a woman miscarries, the chances are, ten to sixteen that the abortion will take place at the third month or under, rather than during the fourth, fifth, or sixth month of pregnancy; ten to twenty-eight that it will take place between the third and sixth month, rather than at the seventh or eighth; ten to thirty-one that it will occur at the seventh or eighth month, rather than at any other period; and lastly, one to three that she will miscarry at all events.

On applying the same calculation to some returns made by the physicians of the *Société Maternelle* in Paris, the author has obtained nearly the same proportion with regard to the probabilities of miscarrying at certain given periods of pregnancy; but by no means the same number of abortions in reference to a given number of pregnancies, and during a determined period of time. The number in this respect being considerably smaller in Paris.

“To what cause this difference is to be ascribed,” says the author, “I will not undertake to state, until I shall have seen more cases of this unfortunate occurrence among that class of people who seem most liable to it, and whom my frequent opportunities, when in the discharge of my duties at the Dispensary, afford me the means of watching and assisting.

“In many instances, I do not hesitate to say, this difference must necessarily arise from bad management during labour. It is no less lamentable than true, that, in many of the cases included in my calculation respecting those patients who have attended at the Dispensary, the poor women themselves have assigned the want of either skill or attention on the part of the midwife during labour, as the probable cause of their subsequent miscarriages; and I find, in fact, on inspection of the register, and on considering the cases of those who have fallen more particularly under my care since, that the miscarriages they have had subsequent to a previous labour, can readily be traced to such a morbid state of the parts as is likely to have been produced by

unskilful management. Lacerations, prolapsi, and discharges of a bad character, announcing a diseased state of the womb, are unfortunately too common among the classes of women I am speaking of in this country. Now, in France, this cause, among the many others of abortion, can scarcely be taken into consideration, in accounting for the smaller number of miscarriages which occur in that country; for the regulations of the government with regard to females practising midwifery are so strict, and require such strong proof of preliminary as well as professional practical education, for the space of two years, at the national establishment of La Maternité, that no illiterate and uneducated woman is allowed ever to meddle with so important a branch of the medical profession, as a resource for failures in other business, or for want of something better to do."

The number of twin-cases in abortion, is also calculated by the author. Of the 128 women above alluded to, six miscarried of twins once; one, twice; and one, three times. The proportion of miscarriages of twins to that of single children, is then as 1 to 27. The author concludes this subject with a more particular account of the cases of abortion which occurred under his own observation in 1818. Of fourteen cases of threatened abortion from constitutional causes, to which the author was timely called, seven were prevented, although four of them had actually begun, and the flooding had lasted for some time. We agree with the author, that the doctrine of abortion is yet susceptible of much improvement; and we think that the sketch he has here presented of his views of this subject, promises much in the development of them which he gives us reason to expect from him.

The third section is on the Diseases of Females. Dr. Granville has formed a new arrangement of these diseases, which, excepting in one secondary and trivial point that will be presently specified, we think by far the best that has been proposed, as it comprises all the perspicuity that is desirable for elementary instruction, and presents such general views as are qualified to guide, as far as such classifications can do, the conduct of the medical practitioner. His three leading divisions are, diseases by which the female sex is more especially affected during the age of puberty; the age of propagation; the critical age. The diseases of the age of puberty are distinguished into 'organic,' 'constitutional,' 'secretory.' The *organic* diseases are again subdivided into 'congenital,' 'subsequent.' The *constitutional*, into 'those preceding menstruation,' 'attending menstruation.' The *secretory*, into 'those from blood-vessels,' 'from surfaces.' It is this subdivision which we think is of doubtful propriety; for none of the secretions can be strictly said to come *immediately* from blood-vessels, whilst they might all be comprised in the view of secretion from



surfaces. The author, too, comprises in it affections which are not properly morbid states of the secretory functions, as *hemorrhage: menorrhagia* is, probably, liable to the same objection. This inconvenience might have been obviated, if he had taken the peculiar functions of the several organs as the base of this subdivision, instead of arranging the diseases it should comprise as secretory diseases; and the alteration here proposed would coincide very well with the other two genera of organic and constitutional affections.

The diseases of the age of propagation, or, more properly speaking, those which especially require the attention of the physician during this epoch, are first distinguished, in the same way as the preceding class, into organic, constitutional, and secretory. The first is subdivided into those impeding propagation, and those often consequent on propagation. The constitutional, into those occurring during pregnancy, and those after pregnancy.

The organic diseases of the critical age, are subdivided into those attended by discharges, and those not essentially attended by discharges; and the constitutional affections, into inflammatory, nervous, muscular.

Our limits will not permit us to adduce the author's specification of particular diseases according to the above classification; but we do not much regret this restriction; for we consider that the more studious part of the profession will peruse the original.

A general table of the cases treated at the Dispensary during the last year, with some abstract views of them, and several good particular clinical remarks, then follow. Of twenty cases of "*peritonitis puerperarum*," which the author regards as the true *puerperal fever*, but one died; and in this instance the assistance of the author was not solicited until a late period of the disease, "when serous effusion in the cavity of the abdomen had taken place, and when bleeding, the heroic remedy for this disease, was no longer of service." This malady, Dr. Granville says, is often *endemic* in certain hospitals; and the physical constitution of the atmosphere may also render it *epidemic*; but he does not think that it is ever *contagious*, "according to the purest and most exact knowledge of the principles of contagion." Of eleven cases of *leucorrhœa*, eight were completely cured, and one greatly relieved. Local applications and strengthening medicines formed the principal remedial measures.

The diseases of children are considered in the fourth section. These are arranged into *infantiles*, beginning at the term of birth, and ending at the period of the first dentition, which is most commonly also that of weaning; *pueriles*, including the

time which elapses between the first and second dentition; and *incertæ ætatis*, which embraces several, *acute* and *chronic*, occurring from birth to the age of puberty. After a brief sketch of the miserable state of a great proportion of the poor of the metropolis, and some remarks on the influence of this on the diseases and mortality of their children, the author gives an account of the cases coming within his practice at the Dispensary during 1818, similar to that already noticed respecting the diseases of women.

The second part of this work is devoted to histories of interesting cases, illustrated by clinical remarks; which we are absolutely prevented from taking into particular consideration, by the impossibility of giving any thing like a sufficient account of them in an abstract at all conformable with the limits of this Journal. We recommend them to the attention of our readers; and we are inclined to believe, that the outline we have here given of this work will present indications of the merit of the whole, sufficient to render this recommendation generally effectual.

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